PLANTAE AUSTRO-AMERICANAE, IV

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1.—De investigationes generis *Mayna* diversae observationes.

A study of a number of recent collections of the flacourtiaceous genus *Mayna* has resulted in several interesting phytogeographic and taxonomic observations which it appears advisable to publish as a contribution towards our further understanding of this unusual group of plants.

Mayna amazonica (Mart. ex Eichl.) Macbride Fl. Perú, Field Mus. Bot. Ser. XIII, pt. 4: 16. 1941.

The collection cited below, compared with type material in Kew by Dr. A. C. Smith, extends the known range of *Mayna amazonica* far to the west in the Amazonian region of Colombia, to the foothills of the Andes. The common name of *nina-caspi* is given for this plant in the Putumayo, where, according to the collector, the bark is utilized medicinally as a caustic.

COLOMBIA: Comisaría del Putumayo, Umbría; "Forest, 325 m. Petals white. Bark used as caustic. *"Nina-caspi"*. Tree 5 m. January-February 1931, *G. Klug 1923* (U. S. Nat. Herb.).

Mayna linguifolia R. E. Schultes, sp. nov.

Arbuscula parva. Ramuli cum cortice rufo-fulvo, minute et obscure fusco-pilosulo. Folia papyracea, longissime angusteque lanceolata, remotissime leviterque sinuata, vel probabiliter etiam subintegra, apice longissime acuminata basi sensim attenuato-cuneata, 42-46 cm. longa, 8-10 cm. lata, longe et robuste petiolata, petiolo usque ad 8-9 cm. longo, 2-3 mm. in diametro; supra viridia pallida, vivo probabiliter aliquid glauca, remotissime et maxime minutisssime albo-hir-

suta cum pilis solis caducis, prope nervos potius densiore; nervis nec conspicuis nec elevatis; subtus subcinereo-viridia, tactu aliquid aspera, maxime minutissime denseque hirtella, prope nervos multo densiore; nervis valde elevatis. Probabiliter monoica. Flores caulinares, pedunculis probabiliter brevibus. Alabastri globosi, 5 mm. in diametro. Sepala 3, aequalia, triangulari-ovata, crasse chartacea, vivo flava, margine integra, apice acuta, extus tenuiter sed conspicue pilosiuscula, 8-10 mm. longa, basi 5-6 mm. lata, in fructu persistentia. Petala 5, tegra, apice rotundato-obtusa, 15-17 mm. longa, 5-7 mm. lata. Receptaculum hirsutum. Stamina circiter sexaginta, flava, libera, erecta, aequalia, membranacea, alba, glabra, elliptico-oblonga, margine intensissime et grossiuscule albo-hirsuta. Antherae 5-5.5 mm. longae, lineari-ellipticae, apice obtusae. Capsula bene matura non visa sed in statu juvenil ovoidea, stilis persistentibus induratis terminata, coriacea, dense sericeo-tomentosa, alis membranaceis dentato-fimbriatis.

COLOMBIA: Comisaría del Vaupés, "selva del Caño Popore (Aparoris-Vaupés), 240 m. alt. Arbolito; flores blancas, caulinares", 30-IX 1939, *J. Cuatrecasas 7091* (TYPUS ET SPECIMEN UNICUM in Herb. Nac. Colomb. No. 8049).

This new species appears to be somewhat intermediate between *M. longifolia* Poeppig and *M. integrifolia* (Kuhlm.) R. E. Schultes. It is distinguished from the former, widespread in the Amazon valley, chiefly by the very narrowly lanceolate leaves which are a bluish or ashy green above, by having equal sepals much larger than the normal size of the unequal sepals of *M. longifolia,* and by having many more stamens. It would appear that there are also differences in the size and alation of the mature capsules. It differs from *Mayna integrifolia* in having subentire leaves of a much larger size although similar in form and coloration as well as in characters of the fertile parts. The type of *Mayna integrifolia* was collected near La Pedrera, not far from the type locality of *M. linguifolia.*

Mayna longifolia Poeppig, Nov. Gen & Sp. 3: 64, t. 241. 1845.

The collection cited below appears to represent this concept. It is interesting inasmuch as it extends the range of this widespread and rather variable species far to the west in Amazonian Colombia, almost to the very foothills of the Andes.

COLOMBIA: Comisaría del Putumayo, "selva higrófila entre Quebrada de La Hormiga y San Antonio del Güamués. 330 m. alt. Arbustillo; frutos verdes-blancos, caulinares" 18-XII-1940, *J. Cuatrecasas 11154* (U. S. Nat. Herb. No. 1799651).

Mayna longifolia Poeppig var. **heliocarpa** R. E. Schultes, var. nov.

Arbuscula parva, 5 ad 6 m. alta, a *Mayna longifolia* typica specialiter fructu alis membranaceis fimbriatissime-dentatis cum fimbriis flammoideo-ligulatis angustissimis usque ad 2.5 vel 3 cm. longis differt.

PERU: Departamento de Loreto, Iquitos "in woods, 100 m. alt. Slender tree, 12-18 ft. with straight trunk; infl. borne on trunk; fruit greenish white". August 3-11, 1929, *E. P. Killip & A. C. Smith 27122* (TYPUS in U. S. Nat. Herb. No. 1460914).

This variety is very easily distinguished by the unusually long and slender dentate fringes on the wings of the capsule. The varietal epithet refers to the similarity of the capsule to the conventionalised sun of Greek mythological designs.

Mayna pacifica Cuatrecasas, Not. Fl. Colomb. VI: 13, t. 8, 9. 1944 (*).

Rev. Acad. Col. Cienc. V, No. 21: 40. Dec. 1944.

The type of *Mayna pacifica,* described last year by Dr. Cuatrecasas, was collected near sea-level in the Pacific coast of Departamento del Cauca. The collections cited below appear to represent the same concept and extend the known range of the species to the north along the Pacific coast of Colombia. The common name near Istmina, Chocó, is given as *pacó.*

COLOMBIA: Intendencia del Chocó - Bahía Solano, dense forest along Quebrada Jellita, alt. 50-100 m.". February 22, 1939, *E. P. Killip & H. García-Barriga 33479* (Herb. Nac. Colomb. No. 08050; U. S. Nat. Herb. No. 1770415). Intendencia del Chocó - cerca de Istmina, carretera a Cértegui, en selva, alt. 75 m. Arbol 6 m.; flores caulinares, amarillas, "Pacó". Agosto 3, 1944, *H. García-Barriga 11194* (Herb. Nac. Colomb.).

(*) Published in "Trabajos de la Comisión Botánica de la Secretaría de Agricultura y Fomento en la Escuela Superior de Agricultura Tropical", Cali, March 30, 1944.—EDITOR.

2.—Forma nova *Herraniae albiflorae.*

The study of a recent collection from Santander indicates the existence of a very large form of the sterculiaceous *Herrania albiflora* Goudot:

Herrania albiflora Goudot fma. **titanica** R. E. Schultes, fma. nova.

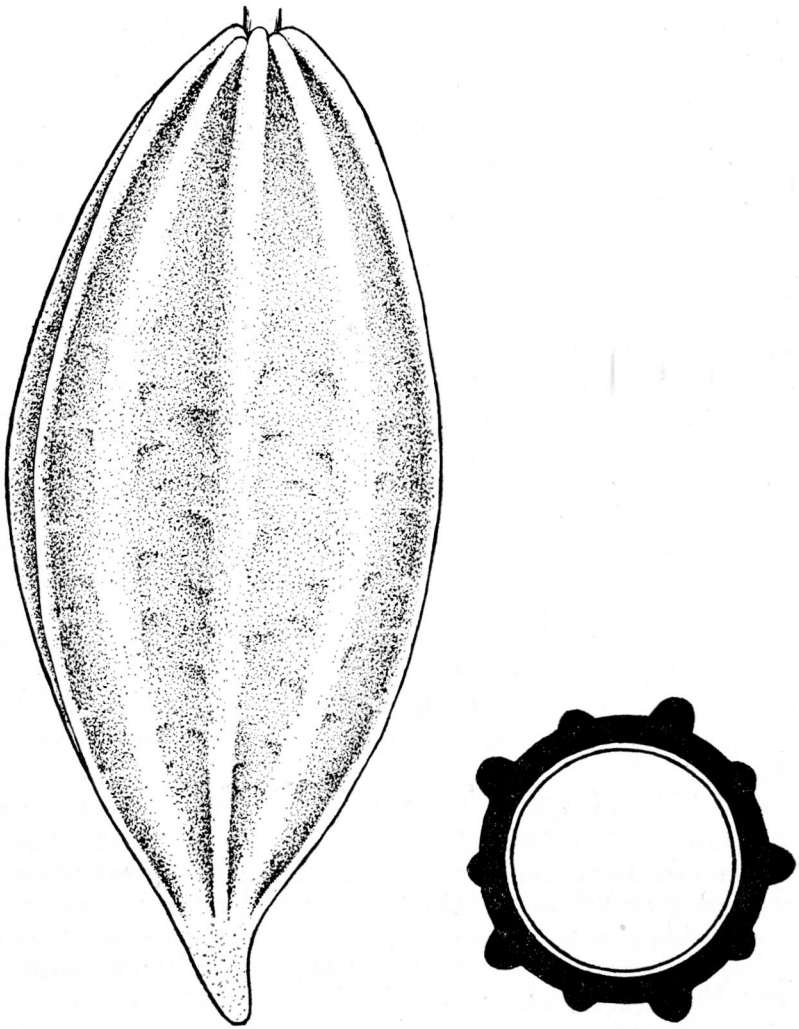
Arbor robusta usque ad (ex collectore) 10 m. alta ab *Herrania albiflora* typica specialiter foliis floribusque multo majoribus differt.

COLOMBIA: Departamento de Santander, Carare, Landázuri, 1000 m. alt. "Arbol de 8 a 10 m. de alt." 28 junio, 1945, *Leopoldo Richter sine num.* (TYPUS in Herb. Nac. Colomb.). Departamento de Santander, vicinity of Baranca-Bermeja, Magdalena Valley, between Sogamoso and Colorado rivers, alt. 100-150 m. Camp Mesa. "A small, sparingly branched, cauliferous tree bearing huge, palmate, long-petiolate leaves. "Cacao de monte". Not rare, specially in rich soil south of Sogamoso River". January 3, 1935, *O. Haught 1490* (U. S. Nat. Herb. No. 1592073).

In CALDASIA recently (II, No. 9: 328. 1944), I wrote: "The collection *Haught 1490* has much larger leaves and flowers than is usual for *Herrania albiflora.* The flowers, which have the peculiar patelliform structure typical of this species, are two and one half times as large as those of all other specimens which I have seen. It might possibly represent a distinct *forma,* but additional collections must be made before the full range of size variation in this species can definitely be understood".

The collection *L. Richter sine num.* cited above seems to present clear evidence that there exists a very large variant of *Herrania albiflora,* which is best treated as a distinct *forma.* The leaves are not only very large for the species but, in *L. Richter sine num.,* the plant is exceptionally robust for the genus, being up to 10 meters tall. The height of the plant from which *Haught 1490* came is not given, but the colector notes that it was "a small tree"; this would seem to indicate, in the case of such a careful collector as Haught, that it was *not,* as in nearly all the species known, a "treelet". The leaves of *Haught 1490* are much larger even than in *L. Richter sine num.*

In four years of exploration in Colombian Amazonia, I have made a special study of *Herrania* in the field. I find that, within species, the size of the plant is more or less standard, regardless of whether



Herrania albiflora fma. **titanica** R. E. Schultes
Fruit, natural size, and diagram of same in cross section.
(Drawn by Helen Schieffer).

it grows in shaded forest or open pasture. This causes me to feel that the unusual size of *Herrania albiflora* fma. *titanica* is not a mere ecological variant.

Vegetatively, the new form is almost indistinguishable from *H. umbratica* R. E. Schultes of the same general region, but there are important differences in the fruits (see CADASIA II, No. 8: 261-264, figs. A, B, C, D. 1943). The best characters for distinguishing species of *Herrania* are found in the morphology of the fruit. It is unfortunate that, except for the drawing which accompanies the original description (see Goudot in Ann. Sci. Nat., sér. 3, 2: t. 5. 1844), we know very little of the fruit of *Herrania albiflora*. In structure, however, it is closely allied to *H. purpurea* (Pittier) R. E. Schultes (see CALDASIA III, No. 11: 23-25, figs. 1, 2. 1944). The capsule of the type specimen of *Herrania albiflora* fma. *titanica* is similar to that of *H. purpurea*, being somewhat intermediate between *H. purpurea* and *H. umbratica*. It is to be hoped that collectors in the central Magdalena Valley will make an effort to procure specimens of *Herrania albiflora* and its variants in fruit.

Dr. Richter informs me that he collected a few dried flowers from the base of the type plant of fma. *titanica* and that they showed evidence of having been white or yellowish in life. Unfortunately, these were lost in shipment. We are uncertain about the color of the flowers in *Haught 1490* as the label bears no note in this respect. However, we find in *Haught 1598* (a collection representing typical *Herrania albiflora*) a note stating: "a small cauliflorous tree, cf. *1490* from which this differs in having *white* flowers (U. S. Nat. Herb. No. 1592091).

I wish to thank Miss Helen Schieffer, who is collaborating with the Instituto de Ciencias Naturales in Bogotá, on investigations of the Colombian flora, for her care and accuracy in executing the accompanying sketch of the fruit of *Herrania albiflora* fma. *titanica*. This sketch should be compared with similar ones for other species of *Herrania* in CALDASIA II, No. 6 (1943) 25, 26; No. 8 (1943) 263; and III, No. 11 (1944) 24.